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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,358	07/06/2006	Sung Cheol Yoon	29137.183.00	2782

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EXAMINER	
TESKIN, FRED M	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
09/20/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,358	YOON ET AL.	
	Examiner	Art Unit	
	Fred M. Teskin	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *19-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 10-18* is/are rejected.

7)☒ Claim(s) *8, 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20100616*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 06/09/2010 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1, 11, 13-15 and 18 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 11-17 of copending Application No. 12/654,039. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim 1 and copending claim 11 are both drawn to a method of producing cyclic olefin polymers having polar functional groups, the method comprising the same step of addition-polymerizing cyclic olefin monomers having polar functional groups in the presence of an organic solvent and either a "catalyst mixture" (claim 1) or a "catalyst system mixture" (claim 11), at a temperature of 80-150^{o}C. Claim 1 further calls for preparing the "catalyst mixture including

i) a procatalyst represented by formula (1) containing a group 10 metal and a ligand containing hetero atoms bonded to the metal;

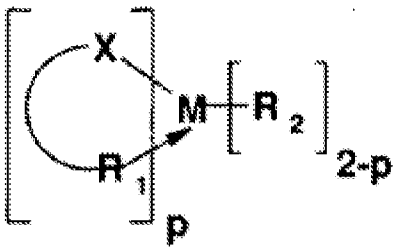
ii) a cocatalyst represented by formula (2) including a salt compound which is capable of providing a phosphonium cation and an anion weakly coordinating to the metal of the procatalyst".

Copending claim 11 likewise calls for preparing "a catalyst system … wherein the catalyst comprising:

i) a procatalyst represented by formula (1) containing a group 10 metal and a ligand containing hetero atoms bonded to the metal;

ii) a cocatalyst represented by formula (2) including a salt compound which is capable of providing a phosphonium cation and an anion weakly coordinating to the metal of the procatalyst".

Both claims subsequently define the formulae (1) and (2) by:



(1) and

$$[(R_3)\text{-}P(R_4)_a(R_{4'})_b[Z(R_5)_d]_c][Ani] \quad (2)$$

and present identical definitions for each of the variables in (1) and (2).

Because claims 1 and 11 recite identical formulae for the procatalyst i) and the cocatalyst ii), examiner considers the different words used to describe the catalyst - i.e., “mixture" versus "system," respectively - to be merely a semantic difference creating no substantive difference in scope between the pending and copending application claims.

As to pending claims 11, 13-15 and 18: examiner finds copending claims 13-17 to be drawn respectively to identical subject matter.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2-7, 10, 12, 16 and 17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11-17 of copending Application No. 12/654,039. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ merely in matters of scope. In particular, applicants' claims 2-7, 10, 12, 16 and 17 are directed to narrower embodiments of the same method as claimed in the copending application. Therefore, the copending application claims embrace the subject matter of the pending claims. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to practice the pending claims when in possession of the copending application claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-7 and 10-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2005/019277 A1 (all references thereto being to the corresponding English language equivalent, US 2007/0123667 A1 to Oshima et al).

Oshima et al have disclosed a method for producing cycloolefin addition polymer which includes the step of addition polymerizing a cyclic olefin monomer having a polar group in presence of a catalyst mixture including species of applicants' procatalyst and cocatalyst as claimed, *viz*., palladium 2-ethyhexanoate and tricyclohexylphosphonium pentafluorophenylborate; see Example 4, wherein the monomers being polymerized include a polycyclic olefin bearing a carboxylate substituent, which qualifies as a polar functional group within instant claims 1/3. The polymerization was carried out in the same manner as in Example 1 of Oshima et al, which details polymerization in an organic solvent (toluene; see [0308]); the polymer obtained has a molecular weight (Mw) of 156,000 (see [0322] and *cf.* instant claim 17). The principal difference between Oshima et al and the present invention resides in polymerization temperature: the specific embodiments of Oshima et al effect polymerization at 75°C instead of at 80-150° C, per claim 1 hereof. However, Oshima et al plainly teach that, in the addition polymerization of their invention, the polymerization temperature is in the range of -20 to 120°C, preferably 20 to 100°C ([0250]). The substantial overlap between the disclosed and claimed ranges would have led one of ordinary skill in the art to modify Oshima et al by undertaking the addition polymerization step at a temperature within the range here claimed. In cases involving overlapping ranges, it has consistently been held that even a slight overlap in range establishes a *prima facie* case of obviousness; see, e.g., *In re Woodruff*, 16 USPQ2d 1936 and *In re Geisler*, 43 USPQ2d at 1365 (acknowledging that claimed invention rendered *prima facie* obvious by prior art reference whose disclosed range (50-100 Angstroms) overlapped the claimed range (100-600 Angstroms)).

Applicants' arguments filed 06/09/2010 have been fully considered and found not to be persuasive.

Applicants contend that WO '277 does not constitute valid prior art against the present application because the effective filing date of the present application is at least September 16, 2004, which is earlier than the publication date of WO '277 (March 3, 2005), and WO '277 does not have a 35 U.S.C. 102(e)(1) date (Reply, p. 10). Applicants explain that when applicants filed the PCT national stage application of PCT/KR2005/002149, applicants intended to claim priority to both KR 10-2004-005612 and KR 10-2004-0074307. However, the national phase application filed on July 5, 2005 claims priority only to KR 10-2004-005612. Applicants represent that the delay of the claim priority of 10-2004-0074307 was unintentional and have filed a petition under 37 CFR 1.55(c) for an unintentionally delayed foreign priority claim on June 3, 2010. Applicant also note the submission of a certified English translation of 10-2004-0074307, and assert that claims 1-7 and 10-18 are fully supported by KR 10-2004-005612 and KR 10-2004-0074307.

To respond: examiner notes the petition filed 06/03/2010 to accept an unintentionally delayed priority claim was dismissed for the reasons stated in the Decision dated 09/13/2010. Therefore, the basis of the priority claim for the present application remains KR 10-2004-005612. As to this priority document, examiner maintains that the rejected claims, particularly claims 1, 4 and 5, literally read on subject matter for which written description is not provided therein (based on the content of the certified translation), based on the reasoning set out in the final rejection of 03/09/2010.

Applicants have not alleged, much less shown, wherein the 10-2004-005612 application provides descriptive support for the full scope of the present claims.

Because the current priority claim is to a foreign application that fails to provide written description of the entire subject matter set forth in the present claims, as required by Section 112, first paragraph, the pending claims have an effective filing date as of the 07/05/2005 filing date of the international stage application, and not as of the filing date of 10-2004-005612. Accordingly, applicants have not antedated WO '277, which was published (03/03/2005) prior to the international filing date. The continued rejection over WO '277 is therefore maintained as tenable.

Claims 8 and 9 stand objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim. The embodiments of the claimed method wherein the catalyst mixture is supported on an inorganic support are not disclosed nor adequately suggested in the available prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred M Teskin/

Primary Examiner, Art Unit 1796

FMTeskin/09-15-10